

1 Navy Case No. 82,192

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3 **LINEAR MAGNETOSTRICTIVE ACTUATOR**

4 ABTRACT OF THE DISCLOSURE

5 Linear output motion of a substantial distance is imparted to the top plate of an actuator by  
6 forces produced within layers respectively formed by interconnectors on which magnetostriction  
7 material slabs are positioned in engagement with end retainers of the interconnectors through  
8 which such forces are transferred in sequence to produce the output motion in response to applied  
9 magnetic fields, inducing maximized magnetostriction in a direction perpendicular to such output  
10 motion. The magnetic fields are generated by electric current conducted through wiring coils  
11 extending through the magnetostriction material slabs maintained assembled in the layers under a  
12 prestress arrangement accommodating relative displacements resulting from the output motion.  
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